December 30, 2020

Mr. Kevin Lawrence
Desert View Power
62-300 Gene Welmas Drive
Mecca, California 92254-0758

Subject: **Quarterly CGA Units 1 and 2**
Report Number: W002AS-678786-RT-1614

Dear Kevin:

This letter presents the results of the Continuous Emission Monitoring System (CEMS) quarterly test audit conducted by Dave Wonderly of Montrose Air Quality Services, LLC (MAQS) on August 21, 2020. MAQS was contracted by Desert View Power to perform this audit. The program consists of a Cylinder Gas Audit (CGA) for Units 1 and 2 on the NO_x, CO, SO_2, and O_2 monitors in accordance with 40 CFR Part 60 Appendix F Section 5.1.2.

The CGA was comprised of challenging the entire unit CEMS as close to the tip of the probe as possible with NBS traceable gases of known concentration. The gases were injected at the probe through previously installed audit ports.

Two audit gases per monitor range were selected according to the requirements of Appendix F. Each monitor was challenged by each of its two gases at three separate times. The accuracy was calculated in two ways: (1) by the percent difference between the actual known gas concentration and the average value read by the monitor; and (2) the difference in ppm from actual known gas concentration and the average value read by the monitor. Results are shown in the attached tables (Tables 1 and 2).

The results of the CGA demonstrate that the CEMS was operating within the EPA quality assurance specification of either 15% accuracy or 5 ppm difference for all parameters. All data, including gas bottle certifications and monitor response data sheets, are provided as an attachment. If you have any questions or comments, please do not hesitate to call me at (714) 279-6777.

Sincerely,

Dave Wonderly
Client Project Manager
Montrose Air Quality Services, LLC

TABLE 1
CYLINDER GAS AUDIT RESULTS
UNIT 1
Desert View Power
December 14, 2020

Parameter	Accuracy, % of Gas Value	Accuracy Acceptance Criteria	Difference From Gas Value, ppm	Difference Acceptance Criteria	Status*
SO_2 Low Range (mid span)	-7.8%	15%	-2.13	5 ppm	Pass
SO_2 Low range (low span)	-1.5%	15%	-0.19	5 ppm	Pass
NO_x Low range (mid span)	0.1%	15%	0.07	5 ppm	Pass
NO_x Low range(low span)	5.7%	15%	1.41	5 ppm	Pass
CO Low Range (mid span)	-4.0%	15%	-2.22	5 ppm	Pass
CO Low Range (low span)	-6.2%	15%	-1.55	5 ppm	Pass
O_2 (mid span)	-0.7%	15%	N/A	N/A	Pass
O_2 (low span)	0.7%	15%	N/A	N/A	Pass
SO_2 High Range (mid span)	-0.5%	15%	-1.45	5 ppm	Pass
SO_2 High Range (low span)	4.7%	15%	5.90	5 ppm	Pass
NO_x High Range (mid span)	1.6%	15%	4.64	5 ppm	Pass
NO_x High Range (low span)	4.6%	15%	5.92	5 ppm	Pass
CO High Range (mid span)	0.0%	15%	-0.07	5 ppm	Pass
CO High Range (low span)	4.4%	15%	5.38	5 ppm	Pass

*** Pass if accuracy less than 15% or within 5 ppm and O_2 accuracy is less than 15%**

TABLE 2
CYLINDER GAS AUDIT RESULTS
UNIT 2
Desert View Power
December 14, 2020

Parameter	Accuracy, % of Gas Value	Accuracy Acceptance Criteria	Difference From Gas Value, ppm	Difference Acceptance Criteria	Status*
SO_2 Low Range (mid span)	-10.0%	15%	-2.70	5 ppm	Pass
SO_2 Low range (low span)	-9.4%	15%	-1.18	5 ppm	Pass
NO_x Low range (mid span)	1.9%	15%	1.04	5 ppm	Pass
NO_x Low range(low span)	8.6%	15%	2.13	5 ppm	Pass
CO Low Range (mid span)	-0.4%	15%	-0.21	5 ppm	Pass
CO Low Range (low span)	5.2%	15%	1.31	5 ppm	Pass
O_2 (mid span)	-1.1%	15%	NA	NA	Pass
O_2 (low span)	-0.1%	15%	NA	NA	Pass
SO_2 High Range (mid span)	-1.6%	15%	-4.51	5 ppm	Pass
SO_2 High Range (low span)	2.9%	15%	3.61	5 ppm	Pass
NO_x High Range (mid span)	1.0%	15%	2.87	5 ppm	Pass
NO_x High Range (low span)	4.7%	15%	6.00	5 ppm	Pass
CO High Range (mid span)	1.1%	15%	3.04	5 ppm	Pass
CO High Range (low span)	7.4%	15%	9.12	5 ppm	Pass

*** Pass if accuracy less than 15% or within 5 ppm and O_2 accuracy is less than 15%**

CYLINDER GAS AUDIT
WORK SHEET

Client: Desert View Power
Location: Mecca
Unit No: 1
Data By: DW

Date: 12/14/2020

NORMAL RANGE

	NOx ppm		CO ppm		SO2 ppm		O2 %	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	24.7	55.5	25	55	12.5	27.1	5.07	9.51
Replicate								
1	25.78	55.26	23.59	52.59	12.33	24.88	5.11	9.47
2	26.30	55.31	23.51	52.96	12.30	24.85	5.11	9.36
3	26.26	56.15	23.24	52.78	12.30	25.19	5.09	9.49
Average	26.11	55.57	23.45	52.78	12.31	24.97	5.10	9.44
Difference, ppm	1.41	0.07	-1.55	-2.22	-0.19	-2.13	n/a	n/a
Accuracy	5.7%	0.1%	-6.2%	-4.0%	-1.5%	-7.8%	0.7%	-0.7%

Client: Desert View Power
Location: Mecca
Date: 12/14/2020
Unit No: 1
Data By: DW

HIGH RANGE

	NOx ppm		CO ppm		SO2 ppm	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	128.5	282	123.3	274	125	277.0
Replicate						
1	134.27	286.26	128.30	273.31	123.51	272.74
2	134.17	286.79	128.77	274.06	134.01	275.65
3	134.81	286.86	128.97	274.41	135.18	278.27
Average	134.42	286.64	128.68	273.93	130.90	275.55
Difference, ppm	5.92	4.64	5.38	-0.07	5.90	-1.45
Accuracy	4.6%	1.6%	4.4%	0.0%	4.7%	-0.5%

Client: Desert View Power
Location: Mecca
Date: 12/14/2020
Unit No: 2
Data By: DW

CYLINDER GAS AUDIT
WORK SHEET

NORMAL RANGE

	NOx ppm		CO ppm		SO2 ppm		O2 %	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	24.7	55.5	25	55	12.5	27.1	5.07	9.51
Replicate								
1	26.62	56.43	26.39	54.73	11.31	24.10	5.07	9.40
2	26.92	56.73	26.39	54.98	11.55	24.47	5.07	9.40
3	26.94	56.46	26.15	54.67	11.10	24.63	5.06	9.43
Average	26.83	56.54	26.31	54.79	11.32	24.40	5.07	9.41
Difference, ppm	2.13	1.04	1.31	-0.21	-1.18	-2.70	n/a	n/a
Accuracy	8.6%	1.9%	5.2%	-0.4%	-9.4%	-10.0%	-0.1%	-1.1%

Client: Desert View Power
Location: Mecca
Date: 12/14/2020

Unit No: 2
Data By: DW

HIGH RANGE

	NOx ppm		CO ppm		SO2 ppm	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	128.5	282	123.3	274	125	277.0
Replicate						
1	134.06	284.29	131.79	273.31	120.06	268.45
2	134.57	284.95	132.68	278.60	131.82	273.00
3	134.86	285.36	132.79	279.20	133.94	276.01
				279.31		
Average	134.50	284.87	132.42	277.04	128.61	272.49
Difference, ppm	6.00	2.87	9.12	3.04	3.61	-4.51
Accuracy	4.7%	1.0%	7.4%	1.1%	2.9%	-1.6%

Client: **Desert View Power**
Location: **Mecca**
Date: 8/21/2020

Unit No: **Boiler 1&2**
Data By: **Dave Wonderly**

Instrument	NOx ppm Low Range		SO2 ppm Low Range		O2 %		CO ppm Low Range	
Range	100		50		25		100	
Gas Specification	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Min	20	50	20	50	4	8	20	50
Max	30	60	30	60	6	12	30	60
Units	% FS	% FS	% FS	% FS	% O2	% O3	% FS	% FS
Gas Requirement	ppm NOx	ppm NOx	ppm SO2	ppm SO2	% O2	% O2	ppm CO	ppm CO
Min	**20**	**50**	**10**	**25**	**4**	**8**	**20**	**50**
Max	**30**	**60**	**15**	**30**	**6**	**12**	**30**	**60**
Gas Used	24.7	55.5	12.5	27.1	4.92	9.51	25	55
% of Range	25%	56%	25%	54%	20%	38%	25%	55%
Status	OK	OK	OK	OK	OK	OK	OK	OK
Cylinder No.	CC499373	CC31709	CC499373	CC31709	CC267572	CC95736	CC499373	CC31709

Instrument	NOx ppm High Range		SO2 ppm High Range		CO ppm High Range	
Range	500		500		500	
Gas Specification	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Min	20	50	20	50	20	50
Max	30	60	30	60	30	60
Units	% FS	% FS	% FS	% FS	% FS	% FS
Gas Requirement	ppm NOx	ppm NOx	ppm SO2	ppm SO2	ppm CO	ppm CO
Min	**100**	**250**	**100**	**250**	**100**	**250**
Max	**150**	**300**	**150**	**300**	**150**	**300**
Gas Used	128.5	282	125	277	123.3	274
% of Range	26%	56%	25%	55%	25%	55%
Status	OK	OK	OK	OK	OK	OK
Cylinder No.	CC74949	CC169801	CC74949	CC169801	CC74949	CC169801

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax:(714) 542-6689
PGVPID: F22018

DocNumber: 000120028

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

MONTROSE

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Praxair Order Number: 70480156
Customer P. O. Number:
Customer Reference Number:

Fill Date: 1/29/2018
Part Number: NI CO25MNS11EAS
Lot Number: 70086802906
Cylinder Style & Outlet: AS CGA 660
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

CO-25.0
NO-24.7
SO_2-12.5
CC499373
Exp. 2/9/21
F22018

Certified Concentration:

Expiration Date:	2/9/2021	NIST Traceable
Cylinder Number:	CC499373	Analytical Uncertainty:
25.0 ppm	CARBON MONOXIDE	± 0.8 %
24.7 ppm	NITRIC OXIDE	± 0.7 %
12.5 ppm	SULFUR DIOXIDE	± 1.7 %
Balance	NITROGEN	

NOx = 24.9 ppm

NOx for Reference Only

Certifcation Information: *Certification Date:* 2/9/2018 *Term:* 36 Months *Expiration Date:* 2/9/2021

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: CARBON MONOXIDE

Requested Concentration: 25 ppm
Certified Concentration: 25.0 ppm
Instrument Used: Horiba VIA-510 S/N 576876015
Analytical Method: NDIR
Last Multipoint Calibration: 1/15/2018

First Analysis Data: **Date:** 2/2/2018

Z:	0	R:	25.2	C:	24.9	Conc:	24.933
R:	25.3	Z:	0	C:	25	Conc:	25.033
Z:	0	C:	25	R:	25.3	Conc:	25.033

UOM: ppm **Mean Test Assay:** 25 ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder #: ALM-335595
Ref. Std. Conc: 25.3 ppm
Ref. Std. Traceable to SRM #: 2635a
SRM Sample #: 58-E-34
SRM Cylinder #: FF10666

Second Analysis Data: **Date:**

Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0

UOM: ppm **Mean Test Assay:** 0 ppm

2. Component: NITRIC OXIDE

Requested Concentration: 25 ppm
Certified Concentration: 24.7 ppm
Instrument Used: Thermo Electron 42i-LS S/N 1030645077
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 1/12/2018

First Analysis Data: **Date:** 2/2/2018

Z:	0	R:	51	C:	24.7	Conc:	24.7
R:	51	Z:	0	C:	24.8	Conc:	24.8
Z:	0	C:	24.8	R:	51	Conc:	24.8

UOM: ppm **Mean Test Assay:** 24.767 ppm

Reference Standard Type: SRM
Ref. Std. Cylinder #: CC2852
Ref. Std. Conc: 51.00 ppm
Ref. Std. Traceable to SRM #: 1683b
SRM Sample #: 45-V-42
SRM Cylinder #: CAL017897

Second Analysis Data: **Date:** 2/9/2018

Z:	0	R:	51	C:	24.6	Conc:	24.648
R:	50.8	Z:	0	C:	24.5	Conc:	24.548
Z:	0	C:	24.5	R:	50.9	Conc:	24.548

UOM: ppm **Mean Test Assay:** 24.582 ppm

3. Component: SULFUR DIOXIDE

Requested Concentration: 12 ppm
Certified Concentration: 12.5 ppm
Instrument Used: Ametek 921CE S/N AW-921-S321
Analytical Method: Ultraviolet Absorption
Last Multipoint Calibration: 1/16/2018

First Analysis Data: **Date:** 2/2/2018

Z:	0	R:	99.8	C:	122.3	Conc:	12.375
R:	101.6	Z:	0	C:	123.1	Conc:	12.456
Z:	0	C:	122.7	R:	101.3	Conc:	12.416

UOM: ppm **Mean Test Assay:** 12.416 ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder #: CC423833
Ref. Std. Conc: 10.21 ppm
Ref. Std. Traceable to SRM #: PRM#C1194
SRM Sample #: C1194310
SRM Cylinder #: D506172

Second Analysis Data: **Date:** 2/9/2018

Z:	0	R:	101.5	C:	124.3	Conc:	12.512
R:	101.6	Z:	0	C:	124.2	Conc:	12.502
Z:	0	C:	124.9	R:	101.2	Conc:	12.572

UOM: ppm **Mean Test Assay:** 12.528 ppm

JP 2-25-18

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax:(714) 542-6689
PGVPID: F22018

DocNumber: 000120028

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Analyzed by: Henry Koung
Henry Koung

Certified by:
Amalia Real

PRAXAIR

DocNumber: 000119815

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel:(323)585-2154 Fax:(714)542-6689
PGVP ID: F22018

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

MONTROSE

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Praxair Order Number: 70478952
Customer PO Number:
stomer Reference Number:

Fill Date: 1/25/2018
Part Number: NI CO275NS1E-AS
Lot Number: 70086802508
Cylinder Style and Outlet: AS CGA 660
Cylinder Pressure and Volume: 2000 psig 140 cu. ft.

CO-274 ppm
NOx-282 ppm
SO2-277 ppm
CC169801
EXP-2-5-26

Certified Concentration:

Expiration Date: 02/05/2026			Cylinder Number: CC169801	NIST Traceable Expanded Uncertainty:
274	ppm	CARBON MONOXIDE		± 0.7 %
282	ppm	NITRIC OXIDE		± 0.3 %
277	ppm	SULFUR DIOXIDE		± 0.6 %
	Balance	NITROGEN		

NOx ppm = 282 ppm NOX for Reference Only

Certification Information: *Certification Date :* 2/5/2018 *Term :* 96 Months *Expiration Date .* 02/05/2026
This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.
Do Not Use this Standard if Pressure is less than 100 PSIG.

F22018

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1 . Component: CARBON MONOXIDE

Requested Concentration: 275 ppm
Certified Concentration: 274 ppm
Instrument Used: HORIBA, VIA-510 576 876 015
Analytical Method: NDIR
Last Multipoint Calibration: 01/02/2018

First Analysis Data:						Date: 01/29/2015	
Z:	0	R:	248.5	C:	275	Conc:	275
R:	248.4	Z:	0	C:	274	Conc:	274
Z:	0	C:	274	R:	248.4	Conc:	274
UOM:	ppm				Mean Test Assay:	274	ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder #: CC243385
Ref. Std. Conc: 248.5 ppm
Ref. Std. traceable to SRM #: 2636e
SRM Sample #: 57-E-28
SRM Cylinder #: FF23380

Second Analysis Data:						Date:	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	ppm				Mean Test Assay:	0	ppm

2 . Component: NITRIC OXIDE

Requested Concentration: 275 ppm
Certified Concentration: 282 ppm
Instrument Used: Thermo Electron 42i S/N 072602432C
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 01/29/2018

First Analysis Data:						Date: 01/29/2018	
Z:	0	R:	253	C:	283	Conc:	283
R:	253	Z:	0	C:	284	Conc:	284
Z:	0	C:	284	R:	253	Conc:	281
UOM:	ppm				Mean Test Assay:	283	ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder #: CC2744
Ref. Std. Conc: 253.2 ppm
Ref. Std. traceable to SRM #: 1685b
SRM Sample #: 43-M-28
SRM Cylinder #: FF20734

Second Analysis Data:						Date: 02/05/2018	
Z:	0	R:	253	C:	281	Conc:	280
R:	254	Z:	0	C:	282	Conc:	281
Z:	0	C:	282	R:	254	Conc:	280
UOM:	ppm				Mean Test Assay:	281	ppm

3 . Component: SULFUR DIOXIDE

Requested Concentration: 275 ppm
Certified Concentration: 277 ppm
Instrument Used: HORIBA, VIA-510, 5203551011
Analytical Method: NDIR
Last Multipoint Calibration: 01/27/2018

First Analysis Data:						Date: 01/29/2018	
Z:	0	R:	495.4	C:	276.6	Conc:	277
R:	495.4	Z:	0	C:	276.6	Conc:	277
Z:	0	C:	276.6	R:	495.4	Conc:	276
UOM:	ppm				Mean Test Assay:	276	ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder #: CC121190
Ref. Std. Conc: 495.4 ppm
Ref. Std. traceable to SRM #: 1661a
SRM Sample #: 94-I-18
SRM Cylinder #: FF22304

Second Analysis Data:						Date: 02/05/2018	
Z:	0	R:	495.4	C:	276.2	Conc:	276
R:	495.2	Z:	0	C:	276.6	Conc:	277
Z:	0	C:	276.6	R:	495.2	Conc:	277
UOM:	ppm				Mean Test Assay:	277	ppm

Analyzed by: Leeanna Rodriguez

Certified by: Quinn Hailes

Making Our Planet More Productive

AC 2-13-18

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel:(323)585-2154 Fax:(714)542-6689
PGVP ID: F22018

DocNumber: 000119814

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

MONTROSE

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

CO-123.3 ppm
NOX-128.5 ppm
SO2-125.0 ppm
CC74949
EXP-2-5-26
F22018

Praxair Order Number: 70478952
Customer PO Number:
Customer Reference Number:

Fill Date: 1/25/2018
Part Number: NI CO125NS4E-AS
Lot Number: 70086802507
Cylinder Style and Outlet: AS CGA 660
Cylinder Pressure and Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date: 02/05/2026			NIST Traceable Expanded Uncertainty:
Cylinder Number: CC74949			
123.3	ppm	CARBON MONOXIDE	± 0.4 %
128.5	ppm	NITRIC OXIDE	± 0.7 %
125	ppm	SULFUR DIOXIDE	± 1.0 %
	Balance	NITROGEN	

NOx ppm = 128.5 ppm NOX for Reference Only

Certification Information: *Certification Date :* 2/5/2018 *Term :* 96 Months *Expiration Date :* 02/05/2026

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.
Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1 . Component: CARBON MONOXIDE

Requested Concentration: 125 ppm
Certified Concentration: 123.3 ppm
Instrument Used: HORIBA, VIA-510 576 876 015
Analytical Method: NDIR
Last Multipoint Calibration: 01/02/2018

First Analysis Data:						Date:	01/29/2015
Z:	0	R:	102.2	C:	123.4	Conc:	123.3
R:	102.3	Z:	0	C:	123.5	Conc:	123.4
Z:	0	C:	123.5	R:	102.3	Conc:	123.3
UOM:	ppm				Mean Test Assay:		123.3 ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder #: CC243560
Ref. Std. Conc: 102.2 ppm
Ref. Std. traceable to SRM #: 1679c
SRM Sample #: 3-I-45
SRM Cylinder #: FF28593

Second Analysis Data:						Date:	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	ppm				Mean Test Assay:		0 ppm

2 . Component: NITRIC OXIDE

Requested Concentration: 125 ppm
Certified Concentration: 128.5 ppm
Instrument Used: Thermo Electron 42i S/N 072602432C
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 01/29/2018

First Analysis Data:						Date:	01/29/2018
Z:	0	R:	100.4	C:	128.4	Conc:	128.4
R:	100.4	Z:	0	C:	128.3	Conc:	128.3
Z:	0	C:	128.3	R:	100.4	Conc:	128.1
UOM:	ppm				Mean Test Assay:		128.3 ppm

Reference Standard Type: NTRM
Ref. Std. Cylinder #: CC336497
Ref. Std. Conc: 100.4 ppm
Ref. Std. traceable to SRM #: 1684b
SRM Sample #: 44-T-83
SRM Cylinder #: FF9258

Second Analysis Data:						Date:	02/05/2018
Z:	0	R:	100.4	C:	128.9	Conc:	128.9
R:	100.3	Z:	0	C:	128.7	Conc:	128.7
Z:	0	C:	128.7	R:	100.3	Conc:	128.7
UOM:	ppm				Mean Test Assay:		128.8 ppm

3 . Component: SULFUR DIOXIDE

Requested Concentration: 125 ppm
Certified Concentration: 125 ppm
Instrument Used: HORIBA, VIA-510, 5203551011
Analytical Method: NDIR
Last Multipoint Calibration: 01/27/2018

First Analysis Data:						Date:	01/29/2018
Z:	0	R:	95.2	C:	125.6	Conc:	125.4
R:	95.3	Z:	0	C:	125.4	Conc:	125.2
Z:	0	C:	125.4	R:	95.3	Conc:	125.1
UOM:	ppm				Mean Test Assay:		125.3 ppm

Reference Standard Type: NTRM
Ref. Std. Cylinder #: SA15531
Ref. Std. Conc: 95.17 ppm
Ref. Std. traceable to SRM #: 120702
SRM Sample #: 12070204
SRM Cylinder #:

Second Analysis Data:						Date:	02/05/2018
Z:	0	R:	95.2	C:	124.7	Conc:	124.7
R:	95.1	Z:	0	C:	124.6	Conc:	124.6
Z:	0	C:	124.6	R:	95.1	Conc:	124.7
UOM:	ppm				Mean Test Assay:		124.7 ppm

Analyzed by: Leeanna Rodriguez

Certified by: Quinn Hailes

Making Our Planet More Productive

AC 2-13-18

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax:(714) 542-6689
PGVPID: F22018

DocNumber: 000120030

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

MONTROSE

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Praxair Order Number: 70480156
Customer P. O. Number:
Customer Reference Number:

Fill Date: 1/25/2018
Part Number: NI CO55MNS10EAS
Lot Number: 70086802503
Cylinder Style & Outlet: AS CGA 660
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

CO- 55.0
NO- 55.5
SO_2- 27.1
CC31709
Exp. 2/7/22
F22018

Certified Concentration:

Expiration Date:	2/7/2022	NIST Traceable
Cylinder Number:	CC31709	Analytical Uncertainty:
55.0 ppm	CARBON MONOXIDE	± 0.6 %
55.5 ppm	NITRIC OXIDE	± 0.7 %
27.1 ppm	SULFUR DIOXIDE	± 1 %
Balance	NITROGEN	

NOx = 55.6 ppm **NOx for Reference Only**

Certifcation Information: *Certification Date:* 2/7/2018 *Term:* 48 Months *Expiration Date:* 2/7/2022

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: CARBON MONOXIDE

Requested Concentration: 55 ppm
Certified Concentration: 55.0 ppm
Instrument Used: Horiba VIA-510 S/N 576876015
Analytical Method: NDIR
Last Multipoint Calibration: 1/15/2018

First Analysis Data: **Date:** 1/31/2018

Z:	0	R:	50.2	C:	55	Conc:	55
R:	50.4	Z:	0	C:	55.1	Conc:	55.1
Z:	0	C:	55	R:	50.3	Conc:	55

UOM: ppm **Mean Test Assay:** 55.033 ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder # : CC186877
Ref. Std. Conc: 50.3 ppm
Ref. Std. Traceable to SRM # : 1678c
SRM Sample # : 04-I-41
SRM Cylinder # : FF18402

Second Analysis Data: **Date:**

Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0

UOM: ppm **Mean Test Assay:** 0 ppm

2. Component: NITRIC OXIDE

Requested Concentration: 55 ppm
Certified Concentration: 55.5 ppm
Instrument Used: Thermo Electron 42i-LS S/N 1030645077
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 1/12/2018

First Analysis Data: **Date:** 1/31/2018

Z:	0	R:	51	C:	55.4	Conc:	55.4
R:	51	Z:	0	C:	55.5	Conc:	55.5
Z:	0	C:	55.5	R:	51	Conc:	55.5

UOM: ppm **Mean Test Assay:** 55.467 ppm

Reference Standard Type: SRM
Ref. Std. Cylinder # : CC2852
Ref. Std. Conc: 51.00 ppm
Ref. Std. Traceable to SRM # : 1683b
SRM Sample # : 45-V-42
SRM Cylinder # : CAL017897

Second Analysis Data: **Date:** 2/7/2018

Z:	0	R:	51	C:	55.6	Conc:	55.573
R:	50.9	Z:	0	C:	55.4	Conc:	55.473
Z:	0	C:	55.4	R:	50.9	Conc:	55.473

UOM: ppm **Mean Test Assay:** 55.506 ppm

3. Component: SULFUR DIOXIDE

Requested Concentration: 27 ppm
Certified Concentration: 27.1 ppm
Instrument Used: Ametek 921CE S/N AW-921-S321
Analytical Method: Ultraviolet Absorption
Last Multipoint Calibration: 1/16/2018

First Analysis Data: **Date:** 1/31/2018

Z:	0	R:	48.6	C:	27.1	Conc:	27.052
R:	48.7	Z:	0	C:	27.3	Conc:	27.251
Z:	0	C:	27.2	R:	48.7	Conc:	27.152

UOM: ppm **Mean Test Assay:** 27.152 ppm

Reference Standard Type: NTRM
Ref. Std. Cylinder # : CC72598
Ref. Std. Conc: 48.58 ppm
Ref. Std. Traceable to SRM # : NTRM12070
SRM Sample # : JOB NO.16055
SRM Cylinder # : N/A

Second Analysis Data: **Date:** 2/7/2018

Z:	0	R:	48.9	C:	27.2	Conc:	27.04
R:	48.8	Z:	0	C:	27.2	Conc:	27.04
Z:	0	C:	27.2	R:	48.9	Conc:	27.04

UOM: ppm **Mean Test Assay:** 27.04 ppm

JD 2-26-15

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax:(714) 542-6689
PGVPID: F22018

DocNumber: 000120030

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Analyzed by: Henry Koung

Certified by: Amalia Real

PRAXAIR
Making our planet more productive

DocNumber: 306921

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22020

MONTROSE AIR QUALITY SERVICES

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

1631 E. St Andrew Pl.
Santa Ana, CA 92705

Certificate Issuance Date: 05/29/2020
Praxair Order Number: 71323524
Part Number: EV NICDOXE53-AS
Customer PO Number: 79313858

Fill Date: 05/20/2020
Lot Number: 70086014101
Cylinder Style & Outlet: AS CGA 580
Cylinder Pressure and Volume: 2000 psig 140 ft3

O_2 4.92
CO_2 10.20
CC267572
F22020

Certified Concentration

ProSpec EZ Cert

Expiration Date:	05/28/2028	NIST Traceable
Cylinder Number:	CC267572	Expanded Uncertainty
10.20 %	Carbon dioxide	± 0.5 %
4.92 %	Oxygen	± 0.5 %
Balance	Nitrogen	

Certification Information:

Certification Date: 05/28/2020 *Term:* 96 Months *Expiration Date:* 05/28/2028

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.

Do Not Use this Standard if Pressure is less than 100 PSIG.

CO2 responses have been corrected for Oxygen IR Broadening effect. O2 responses have been corrected for CO2 interference.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. ***Component:*** **Carbon dioxide**

Requested Concentration: 10 %
Certified Concentration: 10.20 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 05/22/2020

First Analysis Data:							Date	05/28/2020
Z:	0	R:	16.02	C:	10.2	Conc:	10.2	
R:	16.03	Z:	0	C:	10.21	Conc:	10.21	
Z:	0	C:	10.21	R:	16.03	Conc:	10.21	
UOM:	%				Mean Test Assay:		10.2	%

Reference Standard: Type / Cylinder #: GMIS / CC134179
Concentration / Uncertainty: 16.02 % ±0.286%
Expiration Date: 07/10/2022
Traceable to: SRM # / Sample # / Cylinder #: SRM 1675b / 6-F-51 / CAL014538
SRM Concentration / Uncertainty: 13.963% / ±0.034%
SRM Expiration Date: 05/16/2022

Second Analysis Data:							Date	
Z:	0	R:	0	C:	0	Conc:	0	
R:	0	Z:	0	C:	0	Conc:	0	
Z:	0	C:	0	R:	0	Conc:	0	
UOM:	%				Mean Test Assay:			%

2. ***Component:*** **Oxygen**

Requested Concentration: 5 %
Certified Concentration: 4.92 %
Instrument Used: OXYMAT 5E
Analytical Method: Paramagnetic
Last Multipoint Calibration: 05/22/2020

First Analysis Data:							Date	05/28/2020
Z:	0	R:	5	C:	4.92	Conc:	4.92	
R:	5	Z:	0	C:	4.92	Conc:	4.92	
Z:	0	C:	4.94	R:	5.01	Conc:	4.94	
UOM:	%				Mean Test Assay:		4.92	%

Reference Standard: Type / Cylinder #: GMIS / CC138810
Concentration / Uncertainty: 5.00 % ±0.234%
Expiration Date: 12/14/2026
Traceable to: SRM # / Sample # / Cylinder #: SRM 2658a / 72-D-28 / CAL016862
SRM Concentration / Uncertainty: 9.918% / ±0.022%
SRM Expiration Date: 02/03/2024

Second Analysis Data:							Date	
Z:	0	R:	0	C:	0	Conc:	0	
R:	0	Z:	0	C:	0	Conc:	0	
Z:	0	C:	0	R:	0	Conc:	0	
UOM:	%				Mean Test Assay:			%

Analyzed By: Jose Vasquez

Certified By: Nelson Ma

LO 6/30/20

PRAXAIR
Making our planet more productive

MONTROSE AIR QUALITY SERVICES

1631 E. St Andrew Pl.
Santa Ana, CA 92705

1545 E EDINGER AVE
SANTA ANA, CA 92705

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22018

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Certificate Modification Date: 09/13/2018
Praxair Order Number: 70710636
Part Number: NI CD19O5E-AS

Fill Date: 09/07/2018
Lot Number: 70086825002
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure and Volume: 2000 psig 140 ft3

~~CO 18.99 %~~ O2 9.51 %
~~O2 9.51 %~~ CO2 18.99 %
CC95736
9/13/26
F22018

Certified Concentration

Expiration Date:	09/13/2026	NIST Traceable
Cylinder Number:	CC95736	Expanded Uncertainty
18.99 %	Carbon dioxide	± 0.3 %
9.51 %	Oxygen	± 0.4 %
Balance	Nitrogen	

ProSpec EZ Cert

Certification Information:

Certification Date: 09/13/2018 *Term:* 96 Months *Expiration Date:* 09/13/2026

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.

Do Not Use this Standard if Pressure is less than 100 PSIG.

CO2 responses have been corrected for Oxygen IR Broadening effect. O2 responses have been corrected for CO2 interference.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. ***Component:*** **Carbon dioxide**

Requested Concentration: 19 %
Certified Concentration: 18.99 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 08/20/2018

First Analysis Data:						Date	09/13/2018
Z:	0	R:	20.1	C:	18.99	Conc:	18.99
R:	20.1	Z:	0	C:	19	Conc:	19
Z:	0	C:	19	R:	20.11	Conc:	19
UOM:	%				Mean Test Assay:		18.99 %

Reference Standard: Type / Cylinder #: GMIS / CC187238
Concentration / Uncertainty: 20.10 % ±0.24%
Expiration Date: 08/07/2026
Traceable to: SRM # / Sample # / Cylinder #: RGM#CC193512 / N/A / RGM#CC193512
SRM Concentration / Uncertainty: 28.99% / ±0.05%
SRM Expiration Date: 05/15/2023

Second Analysis Data:						Date	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	%				Mean Test Assay:		%

2. ***Component:*** **Oxygen**

Requested Concentration: 9.5 %
Certified Concentration: 9.51 %
Instrument Used: OXYMAT 5E
Analytical Method: Paramagnetic
Last Multipoint Calibration: 09/04/2018

First Analysis Data:						Date	09/13/2018
Z:	0	R:	9.88	C:	9.52	Conc:	9.52
R:	9.88	Z:	0	C:	9.51	Conc:	9.51
Z:	0	C:	9.52	R:	9.89	Conc:	9.62
UOM:	%				Mean Test Assay:		9.51 %

Reference Standard: Type / Cylinder #: NTRM / DT0010402
Concentration / Uncertainty: 9.88 % ±0.4%
Expiration Date: 11/18/2022
Traceable to: SRM # / Sample # / Cylinder #: NTRM #170701 / N/A / NTRM #DT0010402
SRM Concentration / Uncertainty: 9.875% / ±0.040%
SRM Expiration Date: 11/18/2022

Second Analysis Data:						Date	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	%				Mean Test Assay:		%

Analyzed By: Jose Vasquez

Certified By: Danielle Burns

SS 9/30/19

CYLINDER GAS AUDIT
WORK SHEET

CeDAR 1-Minute Data

Data for 8/21/2020 3:33 PM thru 8/21/2020 4:45 PM

Timestamp	(Boiler 1) NOx ppm 1-Min	(Boiler 1) SO2 ppm 1-Min	(Boiler 1) CO ppm 1-Min	(Boiler 1) O2% 1-Min	(Boiler 2) NOx ppm 1-Min	(Boiler 2) SO2 ppm 1-Min	(Boiler 2) CO ppm 1-Min	(Boiler 2) O2% 1-Min
8/21/2020 15:37	54.83	22.84	52.9	0.02	56.32	24.46	55.33	0.04
8/21/2020 15:38	54.99	23.81	53.1	0.01	56.56	25.1	55.43	0.03
8/21/2020 15:39	55.34	24.5	53.12	0	56.27	25.3	55.47	0.03
8/21/2020 15:40	45.04	21.25	42.93	0	44.38	20.82	43.59	0.04
8/21/2020 15:41	25.56	12.73	23.28	0	25.96	12.79	25.6	0.03
8/21/2020 15:42	25.42	11.65	23.09	0	25.33	12.33	25.59	0.03
8/21/2020 15:43	25.07	11.11	22.99	0	25.55	11.99	25.56	0.02
8/21/2020 15:44	36.03	14.47	33.71	0	38.78	16.87	38.13	0.02
8/21/2020 15:45	54.63	23	52.62	0	56.22	24.6	55.16	0.02
8/21/2020 15:46	54.8	24.15	52.67	0	56.44	25.22	55.23	0.02
8/21/2020 15:47	54.92	24.63	52.76	0	56.14	25.45	55.28	0.02
8/21/2020 15:48	47.26	22.17	44.41	0	46.26	21.88	45.3	0.01
8/21/2020 15:49	25.43	13.21	22.93	0	25.88	13.04	25.47	0.01
8/21/2020 15:50	25.08	11.68	22.59	0	25.46	12.5	25.34	0.01
8/21/2020 15:51	25.17	11.27	22.48	0	25.82	12.15	25.31	0.01
8/21/2020 15:52	33.07	13.6	30.3	0	34.65	15.88	34.85	0.01
8/21/2020 15:53	54.49	22.81	51.97	0	55.99	24.57	54.94	0.01
8/21/2020 15:54	54.99	24.13	52.16	0	56.07	25.07	54.96	0.01
8/21/2020 15:55	54.5	24.54	52.16	0	56.59	25.18	55.02	0.01
8/21/2020 15:56	47.57	22.21	44.39	0	46.53	22.06	45.73	0.01
8/21/2020 15:57	25.59	13.14	22.47	0	25.74	12.92	25.27	0.01
8/21/2020 15:58	25.16	11.8	22.14	0	25.09	12.32	25.13	0.01
8/21/2020 15:59	24.95	11.43	22.05	0	25.52	12.04	25.11	0.01
8/21/2020 16:00	58.19	41.61	55.71	0	67.94	53.28	65.72	0
8/21/2020 16:01	128.68	114.32	123.71	0	133.39	117.64	127.42	0.01
8/21/2020 16:02	129.25	121.95	124.44	0	133.94	121.59	127.74	0.01
8/21/2020 16:03	129.39	124.13	124.55	0	134.06	123.27	127.76	0.01
8/21/2020 16:04	158.76	155.25	153.03	0	172.78	165.4	166	0.02
8/21/2020 16:05	281.09	261.73	270.59	0	289.62	265.7	276.48	0.01
8/21/2020 16:06	283.39	272.56	272.09	0	286.83	267.33	273.36	0.07
8/21/2020 16:07	283.36	275.76	272.46	0	291.09	274.34	277.56	0.02
8/21/2020 16:08	243.19	237.61	233.14	0	240.13	224.83	228.46	0.01
8/21/2020 16:09	131.54	140.91	125.88	0	135.66	135.27	129.07	0.01
8/21/2020 16:10	130.66	132.97	124.93	0	134.84	131.67	128.54	0.01
8/21/2020 16:11	130.12	130.54	125	0	134.67	130.52	128.54	0.01
8/21/2020 16:12	170.41	168.98	164.13	0	185.7	181.47	177.13	0.01
8/21/2020 16:13	282.85	267.11	271.6	0	290.44	272.38	277.25	0.02
8/21/2020 16:14	283.66	275.25	272.51	0	291.01	276.29	277.75	0.02
8/21/2020 16:15	284	278.02	272.76	0	291.2	277.72	277.78	0.02
8/21/2020 16:16	246.28	241.19	235.88	0	242.66	229.05	231.09	0.01
8/21/2020 16:17	131.66	142.24	126.32	0	135.89	137.47	129.34	0.01

CYLINDER GAS AUDIT

WORK SHEET

8/21/2020 16:18	130.47	133.85	125.48	0	135.32	133.41	128.75	0.01
8/21/2020 16:19	130.65	131.14	125.2	0	132.5	129.81	126.56	0.58
8/21/2020 16:20	170.24	170.08	164.06	0	183.34	181.96	175.31	0.05
8/21/2020 16:21	283.06	267.97	272.08	0	290.61	273.26	277.48	0.02
8/21/2020 16:22	283.96	276.12	272.99	0	291.62	277.49	278.05	0.02
8/21/2020 16:23	284.15	278.9	273.22	0	291.42	278.69	278.2	0.02
8/21/2020 16:24	214.47	213.81	204.08	2.31	203.06	190.92	192.58	2.55
8/21/2020 16:25	5.48	31.95	1.96	4.84	4.12	20.11	3.31	4.86
8/21/2020 16:26	2.83	14.08	0	4.86	2.14	12.27	1.93	4.87
8/21/2020 16:27	2.66	8.76	0	6.82	2.43	9.48	2.17	6.95
8/21/2020 16:28	3.02	6.36	0.67	9.45	3.13	8.03	2.92	9.43
8/21/2020 16:29	3.43	4.79	0.7	9.46	2.87	6.62	2.95	9.44
8/21/2020 16:30	2.84	3.82	0.27	7.42	2.34	5.43	2.42	7.23
8/21/2020 16:31	1.73	2.66	0	4.9	2	4.28	1.58	4.9
8/21/2020 16:32	1.63	2.2	0	4.89	1.59	3.7	1.43	4.89
8/21/2020 16:33	1.95	2.06	0	6.93	1.91	3.39	1.67	7.06
8/21/2020 16:34	2.22	2.19	0.24	9.46	2.21	3.07	2.55	9.44
8/21/2020 16:35	2.64	1.88	0.21	9.48	2.27	2.8	2.53	9.45
8/21/2020 16:36	2.12	1.51	0.09	7.49	2.05	2.24	2.29	7.29
8/21/2020 16:37	1.85	1.05	0	4.92	1.75	1.91	1.29	4.91
8/21/2020 16:38	1.63	1.24	0	4.9	1.26	1.48	1.39	4.9
8/21/2020 16:39	1.8	1.23	0	6.85	1.54	1.54	1.49	7.01
8/21/2020 16:40	2.5	1.34	0.14	9.47	2.16	1.57	2.43	9.45
8/21/2020 16:41	2.46	1.3	0.12	9.49	1.99	1.44	2.51	9.46
8/21/2020 16:42	2.52	1.11	0.21	9.49	2.16	1.33	2.47	9.47
8/21/2020 16:43	2.33	1.12	0.12	9.49	2.08	1.22	2.44	9.47

THIS IS THE LAST PAGE OF THIS DOCUMENT

If you have any questions, please contact one of the following individuals by email or phone.

Name: Mr. Dave Wonderly
Title: Client Project Manager
Region: West
Email: DWonderly@montrose-env.com
Phone: (714) 279-6777

Name: Mr. Matt McCune
Title: Regional Vice President
Region: West
Email: MMccune@montrose-env.com
Phone: (714) 279-6777